



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,343	09/25/2003	Shawn Joseph Baranczyk	ROC920030213US1	7069
30206	7590	11/14/2008		
IBM CORPORATION ROCHESTER IP LAW DEPT. 917 3605 HIGHWAY 52 NORTH ROCHESTER, MN 55901-7829			EXAMINER HOMAYOUNMEHR, FARID	
			ART UNIT 2439	PAPER NUMBER
			MAIL DATE 11/14/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/671,343
Filing Date: September 25, 2003
Appellant(s): BARANCZYK ET AL.

Scott A. Stinebruner
Reg. No. 38,323
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 8/20/2008 appealing from the Office action mailed 5/12/2008.

(1) Real Party in Interest

The statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The statement regarding related Appeals and Interferences is accurate.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

Following documents were relied upon in rejection of claims:

5'713'018	Chan	01-1998
6'289'379	Urano	09-2001

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 29 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 29 is directed to “a recordable computer readable medium storing the program code.” The Specification does not define “a recordable computer readable medium”, and it is not clear what is generally meant by that phrase. Note that the Specification defines “recordable type media”.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claim 29 is rejected as being directed to non-statutory subject matter. Claim 29 recites a program product comprising a program code and “a recordable computer readable medium”. The specification does not clearly specify “a recordable computer readable medium”, and it is not clear if it encompasses signals, or transmission mediums. The Specification, defines a “recordable type media”. Therefore, replacing “a recordable computer readable medium” with “recordable type media” would meet the statutory requirements.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-3, 6-10, 14-15, 16, 19-23, 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chan (US Patent No. 5,713,018, dated Jan. 27, 1998), in view of Urano (US Patent No. 6,289,379, dated Sep. 11, 2001).

In reference to claim 1:

Chan discloses a method of executing a query in a database management system, the method comprising:

- Receiving an SQL statement from an application program coupled to the

Art Unit: 2439

database management system, where the SQL statements are received from a client through the clients' DBMS access program. (Column 2, lines 48-67)

- Executing the SQL program. (Column 1, lines 65-67)
- Encrypting the SQL statement to generate an encrypted representation of the SQL statement, where the SQL is encrypted into an encrypted SQL string. (Chan Column 3, lines 11-51 shows encryption of SQL statements by the client to secure the statements from access by an unauthorized user.)
- Chan however, does not explicitly teach logging execution of the SQL statement in a database monitor by storing the encrypted representation of the SQL statement in an execution log managed by the database monitor. Urano teaches a system, collecting log information for monitoring computer systems (see abstract, col. 1 lines 9-11, col. 1 lines 60-68, or col. 4 lines 44 to 52.). Urano col. 7 lines 35 to 41 also teach an embodiment that includes encrypting the execution records before logging them to protect the logs. Therefore, Urano teaches a monitoring system that encrypts execution records and logs them for the purpose of monitoring computer systems.

Chan and Urano are analogous art, as they are both directed to protection and secure access to information in computer systems. At the time of invention, it would have been obvious to the one skilled in art to enhance Chan's database management system, which uses SQL statements to submit database commands and return the result of the commands to the client, by encrypting and logging the execution results (SQL statements), as suggested by Urano. Note that Chan already teaches the one skilled in

Art Unit: 2439

art how to encrypt the SQL statements. Also note that Chan verifies (monitors) SQL commands for their validity before execution and returning the SQL commands to the client (See Chan Fig. 4 and associated text, particularly, items 254, 256, and 258). The motivation to combine would be monitoring the operations of Chan's server computer and collecting and logging execution records. The execution records are useful for detecting errors or attacks (as they describe the events related to execution process), and reporting them for mitigation, as suggested by, for example, Urano col. 7 lines 27 to 35 60 to col. 2 line 45.)

- displaying the execution log, including retrieving the encrypted representation of the SQL statement from the execution log, decrypting the encrypted representation of the SQL statement to generate an unencrypted representation of the SQL statement, and displaying the unencrypted representation of the SQL statement (Urano col. 7 line 60 to col. 8 line 2 teaches decryption and display of logs to the administrator for the purpose of error or attack detection.

Therefore, the combination teaches decrypting the SQL statements and displaying them to the Administrator.)

In reference to claim 2:

Chan in view of Urano (Chan Column 3, lines 12-37) discloses the method of claim 1, further Comprising encrypting at least one value passed to one of host variable and a parameter marker used by the SQL statement, wherein logging execution of the SQL statement further comprises storing the encrypted value in the execution log, where the

Art Unit: 2439

SQL statement is the value passed to the host variable, the encrypted SQL string also known as the constant string (Chan Column 3, lines 50-55) and the parameter markers which are used for the arguments. Note also that Urano teaches encrypting the log records, which would include the entire SQL statement.

In reference to claim 3:

Requirements of claim 3 are substantially the same as requirements of claim 1.

In reference to claim 6:

Chan in view of Urano discloses the method of claim 3, wherein generating the encrypted representation is performed prior to communicating the query to the database management system (Chan teaches encrypting the SQL statements by client before they are communicated to the server.)

In reference to claim 7:

Chan (Column 3, lines 12-60) discloses the method of claim 3, wherein the execution detail comprises a query Statement, where the query statement is the SQL or "structured query" statement.

In reference to claim 8:

Chan in view of Urano discloses the method of claim 3, wherein the execution detail comprises a value passed to a host variable during execution of the query (Column 3,

Art Unit: 2439

lines 12-60, where the host variable is the encrypted SQL string, and the value passed to the variable is the value of the function Encrypt()).

In reference to claim 9:

Chan in view of Urano discloses the method of claim 3, wherein the execution detail comprises a value passed to a host variable during execution of the query (Column 3, lines 12-60, where the host variable is the encrypted SQL string, and the value passed to the variable is the value of the function Encrypt()).

In reference to claim 10:

Chan in view of Urano discloses the method of claim 3, further comprising logging a second execution detail for the query in the execution log in an unencrypted representation (Urano teaches two embodiments, one before col. 7 line 35, which does not encrypt the logged execution records, and another embodiment, detailed after col. 7 line 35, in which the logged records are encrypted. Therefore, it makes it obvious to the one skilled in art to create one encrypted set of logged records, and another unencrypted set of logged records. In fact, an unencrypted set of logged records must be created before an encrypted set can be generated by encrypting the unencrypted set).

In reference to claim 14:

Chan in view of Urano discloses the method of claim 3, further comprising determining if

Art Unit: 2439

database monitoring is enabled in the database management system, wherein generating the encrypted representation is performed if it is determined that database monitoring is enabled (Urano at col. 4 lines 30 to 52 teach the option that allows a selection of log files to be collected and sent for analysis and eventually encrypted. Therefore it teaches an enablement feature that when activated causes encryption of the logs.

In reference to claim 15:

Chan in view of Urano discloses the method of claim 3, wherein the query comprises an SQL statement (Chan column 3, lines 12-60 shows that SQL statements are used for database query).

In reference to claim 16, 19-23, 27-29:

Requirements of claims 16, 19-23, 27-29 are substantially the same as claims 1-3, 6-10, 12, and 14-15 above.

9. Claims 4-5, 11, 13, 17, 18, 24 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chan (US Patent No. 5,713,018, dated Jan. 27, 1998), in view of Urano (US Patent No. 6,289,379, dated Sep. 11, 2001), and further in view of Examiner's Official Notice.

Art Unit: 2439

In reference to claim 4:

Chan in view of Urano fails to explicitly disclose the method of claim 3, further comprising receiving the query in an unencrypted form from an application program in communication with the database management system.

However, the Examiner takes official notice that receiving an SQL query in unencrypted form was well known at the time of the invention. In fact it was the state of the prior art. Chan attempts to provide some measure of security in executing SQL statements by a DBMS. The prior art comprises transmitting and receiving these commands in unencrypted form.

It would have been obvious to one of ordinary skill in the art at the time of invention to add the teaching of receiving the query in unencrypted form in order to provide the advantage of speeding up processing and execution times without the added overhead of implemented security, to the modified method of Chan in view of Urano.

In reference to claim 5:

Chan in view of Urano discloses the method of claim 4, wherein generating the encrypted representation is performed after communicating the query to the database management system. As discussed in reference to claim 1, the combination of Chan in view of Urano teaches encrypting the execution logs. Therefore, the SQL statements are executed before they are encrypted. Note that the SQL queries are communicated before they are executed.

Art Unit: 2439

In reference to claim 11 :

Chan in view of Urano discloses the method of claim 10, wherein the second execution detail includes at least one of an access plan and a performance statistic associated with execution of the query . Examiner takes the Official Notice that generating performance statistics associated with execution of programs and queries was well-known in the art at the time of invention. Urano teaches a system that collects logs related to execution process for the purpose of error detection and trouble shooting. It would have been obvious to the one skilled in art to produce performance statistics and log it as execution process related information, and add this feature to the combination of Chan over Urano. The motivation would be to enhance the error correction and trouble shooting capabilities by including performance statistic information. Access plan is also a well-known attribute related to execution process. It would have been obvious to the one skilled in art to include access plan information in the set of parameters of the combination of Chan over Urano. The motivation would be to allow implementation of security features to control access to programs. Note further that Applicant's Appeal Brief in page 19 admits that performance statistics and Access Plan are well-known in the art.

In reference to claim 13:

Chan (Column 3, lines 35-50) discloses encryption with the private key and decryption with the public key, but Chan in view of Urano fails to explicitly disclose encrypting the execution detail using a public key, and wherein the program code is configured to

Art Unit: 2439

decrypt the execution detail by decrypting the execution detail using a private key paired with the public key.

The examiner takes official notice that public key cryptography was well known to those of ordinary skill in the art at the time of invention. Public key cryptography encrypts with the public key and decrypts with the private key. The method Chan is advocating is a digital signature algorithm which encrypts with a private key and decrypts with the public key.

It would have been obvious to one of ordinary skill in the art at the time of invention to encrypt the SQL code with the public key and decrypt with the private key, and modify the teachings of Chan in view of Urano accordingly. The motivation to do so would be to establish the secrecy such that only the person with the private key would be able to read and decipher the query.

In reference to claims 17, 18, 24, and 26:

Requirements of claims 17, 18, 24, and 26 are substantially the same as claims 4, 5, 11, and 13 above.

(10) Response to Argument

The following describes Appellant's specific arguments and the corresponding responses:

A. With regards to rejection of claim 29 under section 112 second paragraph, appellant argues: "Applicant is aware of no requirement that every term in a claim be explicitly defined in the specification, so the Examiner's assertion that the claimed term is not explicitly defined is not dispositive of the issue." However, the rejection does not include every term in the claim. The term of interest is considered to be sensitive in determination of patentability, as it may make the claim be directed to non-statutory subject matter. There has been extensive discussion on whether a computer readable medium is a tangible embodiment in all of its possible instances. The most effective way to determine the scope "recordable computer readable medium" is using its definition in the Specification. It is also noteworthy that there are several other terms of claim language, not defined explicitly in the Specification, that were not rejected under section 112. An example of such terms is an SQL statement. This term is known in the art, and is considered definite. Therefore, the terms that have adequate definition in the prior art are not rejected, and a term such as "recordable computer readable medium" is rejected for lack of precise definition and the sensitivity associated with that term.

Appellant further argues: "Applicant submits that the specification as a whole, taken along with the knowledge of one of ordinary skill in the art, provides adequate support for the term. First, as the Examiner acknowledges, the term "recordable type media" is explicitly defined, and it is defined in such a manner that limits the term to only physical, tangible media within the context of statutory subject matter (as discussed in greater detail below). "Media" and "medium"

Art Unit: 2439

are interchangeable terms, and the term "type" has little bearing on the meaning of the term, so the term "recordable type media" is for all intents and purposes equivalent to the term "recordable medium." The term objected to by the Examiner also qualifies the medium as being "computer readable;" however, this qualifier is self-explanatory, and furthermore is so commonly required by the Office in software-related claims to render a claim statutory, that Applicant submits that one of ordinary skill in the art would have no problem whatsoever ascertaining the meaning of the term "recordable computer readable medium." The term is not indefinite, so reversal of the Examiner's rejection is respectfully requested."

However, appellant acknowledges that the exact phrase "recordable computer readable medium" is not defined in the Specification, but appears to rely on other phrases and terms defined in the Specification, and what is readily known in the art to argue that the phrase is definite. However, a very important reason the certain phrase is rejected, is presence of those other terms in the Specification, which defines other elements, and not "recordable computer readable medium". Meaning, if the Specification was completely silent about recordable type media, it would have been reasonable to exclusively and only consider what is readily known in the art to determine the scope and meaning of "recordable computer readable medium". However, the fact that Specification does define other terms related the phrase (see Specification page 9, lines 16-20), and not exactly and explicitly the phrase itself, makes the phrase vague in its scope and meaning. It is not possible to precisely define what encompasses and does not encompass "recordable computer readable medium", and therefore a rejection is

Art Unit: 2439

appropriate. Accordingly, appellant's argument relative to the rejection of claim 29 under section 12 second paragraph is not persuasive.

It is noteworthy that, in the last Office Action, Examiner did suggest "recordable type media" as an alternative to the phrase "recordable computer readable medium." This replacement would have overcome the rejection. In fact, in the footnote of the Appeal Brief, appellant appears to accept an amendment to replace the phrase with what is suggested by the examiner.

B. With regards to rejection of claim 29 under section 101, appellant cites their Specification at page 9, lines 16-20, and argues that such definitions makes "recordable computer readable medium" defined as a tangible item. However, as mentioned in section A above, none of those definitions defines the phrase "recordable computer readable medium" explicitly or precisely. In addition, Appellant's cited portion in its exact form reads:

"Examples of computer readable signal bearing media include but are not limited to recordable type media such as volatile and non-volatile memory devices, floppy and other removable disks, hard disk drives, magnetic tape, optical disks (e.g., CD- ROMs, DVDs, etc.), among others, and transmission type media such as digital and analog communication links."

Art Unit: 2439

Appellant adds paragraph breaks to the cited portion in their presentation to make a point that transmission type media and recordable type media have separate definitions, and a recordable type media is directed to statutory subject matter. Examiner has accepted the definition of a recordable type media, and in fact suggested using that term to correct the problem. However, the claim at hand is directed to “recordable computer readable medium” and not “recordable type media”.

Appellant further breaks down the words in the phrase “recordable computer readable medium”, and discusses the generic meaning of each word in an effort to indicate that the phrase is defined and is directed to statutory subject matter. However, the only place that defines anything close computer readable medium is where computer readable signal bearing medium is defined (see page 9 of appellant’s Specification).

This phrase literally includes signals. Therefore, there is no clear definition of computer readable medium that is limited to tangible and physical matter. In fact, as discussed in section A above, there is no clear definition of “recordable computer readable medium”, and the sporadic definition of similar terms in the Specification allows an interpretation that is directed to non-statutory subject matter.

C. With regards to rejection of claims 1-3, 6-10, 14-16, 19-23 and 27-19 under section 103 based on Chan (US Patent No. 5’713’018), in view of Urano (US Patent No. 6’289’379) the appellant has argued that the rejections do not present a prima facie case of Obviousness. appellant argues the following:

Independent Claim 1:

Regarding independent claim 1, appellant argues that the combination of Chan and Urano does not establish a prima facie case of obviousness. Specifically, applicant argues: "First, as the Examiner does not dispute, Chan does not disclose any database monitor or execution log managed by a database monitor, much less a database monitor or execution log that encrypts any information stored therein." However, Urano is relied on for disclosing a system, collecting log information for monitoring computer systems (see abstract, col. 1 lines 9-11, col. 1 lines 60-68, or col. 4 lines 44 to 52.). Urano col. 7 lines 35 to 41 also teach an embodiment that includes encrypting the execution records before logging them to protect the logs. Therefore, Urano teaches a monitoring system that encrypts execution records and logs them for the purpose of monitoring computer systems.

Appellant further argues: "Urano, however, does not remedy this shortcoming of Chan. Urano is directed to a distributed logging system that monitors abnormal behavior in a computer system, but there is no disclosure or suggestion in the reference of a database monitor, or in particular an execution log that is managed by a database monitor." However, as shown in its cited portions, Urano teaches a system that collects different type of logs and stores them in log databases (see for example Fig 2 item 206). These logs are stored in the log database by a manager computer. The database log is also accessed to retrieve the logs for analysis and display as shown by Urano's manager computer. Therefore, the

Art Unit: 2439

manager computer monitors the log databases. Note further that the combination of Chan and Urano teaches logging encrypted SQL commands. SQL commands are executables. Therefore, the combination of Chan and Urano teaches storing encrypted SQL executables records in a database and a database monitor that monitors the executable logs.

Appellant further argues: "The reference discloses databases, e.g., as shown in Figs. 1-3 and 10; however, these databases are only discussed in the context of storing log data, or storing analysis rules. There are no particulars in Urano regarding the monitoring of those databases themselves. Put another way, the databases in Urano are part of the logging system, rather than part of the system being logged." However, as mentioned before, Urano teaches that the logs are stored in a database and retrieved and displayed by the manager computer, and therefore the logs are monitored by a database monitor. It is not clear why appellant believes that Urano does not teach a database monitor. Even if the databases of Urano are part of the logging system, they still log records in a database, and the database is managed and monitored by the manager computer.

Appellant further argues: "Second, even if some component in either Chan or Urano were analogized to a database monitor or an execution log managed thereby, neither reference discloses or suggests logging execution of an SQL statement in a database monitor by storing the encrypted representation of the SQL statement in an execution log managed by the database monitor." However, this argument does not discuss any reason to traverse the rejection

Art Unit: 2439

associated with claim requirement. The rejection of claim 1 shows how, the combination of Urano and Chan makes the claim requirement obvious.

Appellant further argues that Chan lacks any disclosure of the encrypting SQL statement or storing the encrypted SQL statement in an execution log of a database monitor, and lacks the words “log” or “monitor”. However, Chan teaches a database management system which uses SQL statement to submit database commands and return the results to the client. The SQL statements are stored in a database of Chan’s as particularly evident in Fig 4 and Fig 2, where the encrypted SQL statements are received from a client, decrypted, executed and the result of execution is returned to the user. Therefore, Chan teaches storing (logging) the results of execution of SQL statements. Urano teaches logging database records in the encrypted form, and therefore, as shown in the rejection, the combination of Chan and Urano teaches logging SQL execution results in an encrypted form. Therefore, the combination of Urano and Chan teaches the terms “log” and “monitor” as exactly required by the claim.

Appellant further argues that Chan does not teach encryption mechanism in a database server, and only teaches encryption of SQL records by a client. However, Urano teaches and is relied on for teaching of encrypting the database records, and the combination teaches encryption of SQL records and logging in a database.

Art Unit: 2439

Appellant further argues: "Urano does little to address the shortcomings of Chan. Urano discloses the encryption of a log at col. 7, line 36 to col. 8, line 12, for the purpose of preventing alteration of a log. In the Urano process, a log is divided into multiple portions, given a digital signature and encrypted, with each portion sent to a different computer for storage. It is important to note that each computer then decrypts the received log and saves the decrypted version for storage (col. 7, lines 60-63). It is somewhat unclear as to whether an encrypted version of a log is even ever stored in an execution log in Urano, since the log, once sent to another computer, is decrypted prior to storage." However, Urano col. 7 lines 35 to 41 clearly teaches: *"A computer 1001 outputs the execution result of a program as a log. Then, it divides the log into multiple portions with appendage information added, adds a digital signature to the log, and then encrypts the log."* Therefore Urano clearly teaches storing the encrypted log. Note that once the encrypted logs are generated, they must be stored for further use, such as transmission to other systems or decryption. In addition, Urano col. 8 lines 13-15 states: "In the above example, although the log is output, stored, and read by three computers, all of these may be done by one computer," This clearly shows Urano's suggestion of storing the logs in one computer.

Appellant further argues: "Moreover, since Urano states at col. 7, lines 60-63 that an end user computer 1011 typically accesses computers 1005, 1006 and 1007 to read the log (Fig. 10), and the log is decrypted in those computers, Urano is unconcerned with restricting access to a log, or to preserving the confidentiality of the details in the log." However, the access is provided after decryption. Anyone trying to access to logs has to be able to decrypt them, and

Art Unit: 2439

therefore, it is not clear why appellant renders Urano's invention unconcerned with restricting access to logs or preserving the confidentiality of logs.

Appellant further argues: "Furthermore, given that Urano is not specifically directed to database monitors or execution logs managed thereby, Urano cannot be relied upon to suggest encrypting and storing database-specific execution details such as SQL statements within an execution log, as required by claim 1." However, Urano is directed to database management systems. More importantly, appellants keeps ignoring that the rejection is based on the combination of Chan and Urano, and not Urano alone or Chan alone. The combination teaches storing database-specific execution details such as SQL statements within an execution log, as required by claim 1. The rejection clearly states the specific features disclosed by Urano. Appellant has not stated one reason why Urano cannot be relied on for disclosing those specific features identified by the rejection.

With regard to claim requirement of displaying the execution log in an unencrypted form.

Appellant argues: " As noted above, however, it is not even clear that Urano stores an encrypted information in a log, since the encryption is performed on one computer, the encrypted information is sent to multiple other computers, and those computers decrypt the information and store the information in decrypted form (col. 7, lines 60-63). It is only after the information is decrypted and stored in one of the computers that a user can access the information (col. 7, lines 64-66). " However, as discussed above, Urano does teach storing the encrypted

Art Unit: 2439

information in a log. Moreover, it is not clear how the above statement can potentially traverse the rejection. Let's assume that as stated above, it is only after the information is decrypted and stored in one of the computers that a user can access information. This has no conflict with Urano's teaching of decrypting the encrypted logs and displaying the unencrypted logs, which is what the claim requires.

Appellant further argues: "Irrespective of this fact, however, Urano still does not disclose decrypting an SQL statement stored in a log and displaying that decrypted statement to a user. Applicant is not merely claiming the display of an execution log. Instead, claim 1 is directed to displaying an SQL statement in an unencrypted form, and in connection with the display of an execution log, after than SQL statement has been encrypted and stored in the execution log."

However, once again applicant ignores that the rejection relies on Chan in view of Urano and not Urano alone. As shown in the rejection, the combination of Chan in view of Urano teaches encryption and logging of SQL executables. Urano does teach decryption and display of the logs, therefore, the combination teaches decryption of encrypted SQL logs, and displaying the logs in an unencrypted format.

Applicant once again appears to refer to portions of their Specification regarding the type of problems that their invention is intended to solve, and argues: "While the references need not necessarily have to suggest Applicant's particular problem, the fact that the references are directed to the use of encryption for completely different reasons is highly relevant

Art Unit: 2439

to the question of whether the references suggest encrypting SQL statements that are stored in the execution log of a database monitor for a database management system and then decrypting those SQL statements in connection with displaying them to a user. From a fundamental standpoint, neither reference is even directed to database monitors or execution logs managed thereby, so Applicant submits that one of ordinary skill in the art would not be motivated to combine the references.” However, first, it is not true that the references are directed to use of encryption for a completely different reasons. For instance, Urano col. 7 lines 1-10 shows the purpose of Urano’s invention to be include data theft prevention.

Therefore, encryption is used to support confidentiality, which is the same stated purpose of applicant's invention. Second, it is not true that neither references is directed to database monitors or execution logs. As discussed previously, Urano is directed to database monitors and execution log management. Third, the rejection includes a clear motivation statement as the reason the one skilled in art would combine the teachings of Chan and Urano. The motivation stated by Examiner, which is cited from within Urano, is not discussed by the appellant.

Appellant further argues: “The Examiner's approach in this case, in fact, is replete with hindsight-based analysis. It appears the Examiner has basically taken the position that because monitoring databases is known, and encrypting data stored in a log is known, then any encryption of database-related information in a log must likewise be known.” However, the facts relied by the examiner in rejection of claim 1 are not based on hindsight or material from applicant’s disclosure. Those facts are supported by evidence from the cited prior

Art Unit: 2439

arts, which predate applicant's invention. Appellant also states that no objective reason has been proffered as to why skilled in art would be motivated to modify or combine the reference. However, the rejection of claim 1 includes a clear motivation statement, as suggested by Urano, which is never discussed by the appellant.

Appellant further argues that their invention has a unique and unexpected advantage of protecting potentially confidential execution details. However, Urano is directed to the same advantage. For example, Urano col 2 lines 11-16 shows the objective of invention to be protecting the logs from being altered or wire-taped. Therefore, it is a clear objective and advantage of Urano to protect the confidentiality of logged records. Urano in combination with Chan teaches protecting confidential execution details of SQL statements.

According to the above discussion, appellant's argument to traverse the rejection of claim 1 is non-persuasive.

Independent claims 3, 16 and 29:

Art Unit: 2439

Appellant's argument relative to claims 3, 16 and 29 is similar to their argument relative to claim 1, and accordingly is found non-persuasive.

Dependent claims 2, 8, 9, 21 and 22:

With respect to claims 2, ,8, 9, 21 and 22, appellant argues: "The Examiner's use of the SQL statements themselves as corresponding to "values" effectively reads the fact that values are provided in addition to SQL statements or queries, out of these respective claims." However, SQL statements do include values (see for example Chan col. 3, line 16, indicating an SQL statement with placeholders (for values). Also the encrypted SQL string includes an encryption key(a value)). Therefore, the claim limitation is addressed by citation from prior art, and is not read out of claim language.

Appellant also argues: "Furthermore, as disclosed at col. 3, lines 50-60, the values that are passed as arguments for placeholders in Chan are unencrypted - only the SQL statement string is encrypted." However, there is nothing in col. 3 paragraph 50-60 that shows the placeholders are unencrypted. In fact, col. 3 line 16 shows that the SQL statement with placeholders is encrypted. Note that the "Encrypt" function is applied to what is inside the parenthesis, which includes the placeholders.

Art Unit: 2439

Applicant also argues: "Furthermore, given that the SQL statement in Chan is not even stored in encrypted form in an execution log, or decrypted in association with the display of the execution log, as discussed above in connection with claims 1, 3 and 16, Applicant submits that Chan does not read on these claims." However, as discussed above with regards to claim 1, the combination of Chan in view of Urano teaches storing SQL statements in encrypted form in an execution log, and decryption in association with the display of the execution log.

Dependent claims 10 and 23:

With regards to claims 10 and 23 appellant argues: "By the Examiner's own admission, however, these variations are in separate embodiments, and Urano does not disclose or suggest that both encrypted and unencrypted details can reside in the same execution log, so the Examiner has failed to establish a *prima-facie* case of obviousness as to the combination." However, the rejection states that the teachings of the two embodiments make it obvious to create both the encrypted and unencrypted logs. More importantly, the rejection points out that the unencrypted log must exist before the encrypted log can be generated, therefore teaching that both the encrypted and unencrypted logs exist at the same time.

Art Unit: 2439

Appellant further argues: "The Examiner also states that an unencrypted set of records must be created before an encrypted set can be generated; however, even if that is true, the claim is directed to storing/logging execution details in an execution log, so even if a record is unencrypted before it is encrypted, if the unencrypted form is not logged or stored in the log, the creation of that unencrypted record falls short of disclosing claimed feature of logging an unencrypted execution detail in an execution log." However, it is not clear why the appellant assumes that the unencrypted form is not logged or stored in the log. The unencrypted records of SQL commands are clearly stored and logged, As they are later fetched and displayed to the user.

Dependent claims 11 and 24:

Appellant argues: "While performance statistics and access plans are well known in the art, storing such statistics and access plans in an execution log for a database monitor in an unencrypted form, while other execution details for a database query are stored in the same execution log in encrypted form, is not disclosed or suggested by the prior art of record. The Examiner's reliance on Official Notice ignores the specific language of the claims, and attempts to parse the language of the claims to such an extent that the totality of the claimed invention is lost." However, Examiner's rejection includes a clearly stated reason and motivation for including the performance statistics (the claim requires inclusion of at least one of performance statistic and access plan, and not necessarily both) in the execution logs in

Art Unit: 2439

an unencrypted form. Claim 11 is dependent on claims 10 and 3, and claim 24 is dependent on claims 23 and 16. The rejections associated with the parent claims, and claims 11 and 24 show how all the elements of claims are made obvious by the combination of Chan and Urano. Therefore, the rejection does not ignore any of the specific language of claims. Also, appellant does not reason or explain how the supposed parsing of the claim language by the examiner is in such extent that the totality of the claimed invention is lost. The claim requires an encrypted and an unencrypted execution log, along with performance statistics details logged in an execution log. As mentioned above, the rejection shows how inclusion of all three elements would be obvious based on teachings of the cited prior arts. Therefore, the rejection addresses all claim requirements, and the totality of the claim is not lost.

Dependent claims 6-7, 19-20, 14-15, 27-28, 4-5, 17-18 and 13 and 26 are not argued separately.

According to the above discussion, appellant's argument relative to allowability of claims 1-11, 13-24 and 26-29, is non-persuasive.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

Respectfully submitted,

/Farid Homayounmehr/
Farid Homayounmehr
Examiner, GAU 2439

November 5, 2008

Conferees:

Kambiz Zand
SPE 2439

/Kambiz Zand/
Supervisory Patent Examiner, Art Unit 2434

Nasser Moazzami
SPE 2436
/Nasser G Moazzami/
Supervisory Patent Examiner, Art Unit 2436

Application/Control Number: 10/671,343
Art Unit: 2439

Page 30